# Department of Technology Services

## 2017-2020 Strategic Plan

DTS
Dept. of Technology Services

# 2017-2020 STRATEGIC PLAN STATE OF UTAH DEPARTMENT OF TECHNOLOGY SERVICES

## Overview

The 2017–2020 Strategic Plan for the Department of Technology Services (DTS) was developed to help government leaders evaluate and prioritize the technology innovations that enable them to achieve their business and service delivery objectives. Each agency should carefully consider how the strategic goals outlined in this plan align with agency objectives. The plan presents technology trends DTS leaders identified as relevant, and describes how these trends will affect the direction for information technology management statewide.

Technology allows agencies to perform more efficiently and fulfill citizen needs. It will continue to provide a vehicle for innovative solutions. DTS must ensure that IT initiatives align with agency priorities, both current and future. DTS and agencies must adapt planning and governance processes to the emerging world of 24/7 access to government to meet the needs of the mobile citizenry. Utah is well poised to meet the goals in this plan.

Utah Code 63F-1-203 explicitly requires the Chief Information Officer (CIO) to prepare an executive branch strategic plan that addresses:
- Interchange of information between executive branch agencies
- Coordination between agencies in the development and maintenance of information technology and systems
- Protection of the privacy of individuals who use State systems
- Priorities for the development and implementation of information technology and systems
- Maximizing the use of existing State information technology resources

The Department of Technology Services must also ensure that cost-effective, efficient information and communication systems and resources are being used by agencies to reduce data, hardware, and software redundancy (Utah Code 63F-1-104).

Accordingly this document aligns the following Core Strategic Objectives for 2017-2020 with the requirements of the Utah Code. These goals are meant to support State agency business objectives, support the Governor's goals, support the goals of DTS, and help define metrics by which the Department of Technology Services can measure progress.

## Privacy and Security

The State of Utah's information technology infrastructure is tightly woven into all State business functions and is an integral part of daily tasks. Data privacy requirements and security of the technology infrastructure cannot be separated from the department's overall mission, as the state's information resources are among the most valuable state assets. Security is a top priority of the agency.

In addition to protecting networks and information assets, specific regulatory compliance objectives must be achieved to protect agencies and the public from unnecessary liabilities. DTS policies are aligned with National Institute of Standards and Technology (NIST) standards.

DTS will continue to evaluate the adequacy of the department's and the executive branch agencies' data and information technology system security standards through an independent third party assessment every two years.

DTS will cooperate with other governmental entities, including education, courts, other state agencies, and local government, to consolidate security monitoring and reporting to one Center within the state.

## Agency Business Alignment

There is no shortage of demand from State agencies to offer more IT solutions to help government operate more efficiently. DTS will continue to establish a close working relationship with stakeholders to ensure the state's IT organization is responsive, accountable, and aligned to the business needs of the State of Utah. DTS will continually seek improvements throughout all activities in order to provide optimal IT solutions, including the improvement of current services. DTS will:

- Provide guidance to agencies on strategic IT decisions
- Provide measurable input to agency leadership on the efficiency and effectiveness of all IT products and services in alignment with business objectives
- Engage agency leadership in identifying and executing automation and optimization opportunities, including development of applications
- Work closely with state leadership in developing programs for enterprise automation
- Track and manage agency IT operational requirements to meet agreed to service levels, engaging DTS and other resources as required

DTS remains focused on providing excellent customer service through:
- Regular meetings with DTS management to identify any issues and areas of improvement
- Surveys sent to customers for service tickets
- Evaluation of metrics to identify new areas and ways to improve service
- Dashboards of up to date metrics available to all stakeholders
- Remaining agile in processes
- Project communication documents to describe purpose, timeline, impact to agencies, and request feedback to ensure customers understand projects
- Competitive rates to ensure effective and efficient service

DTS will measure success through the effective achievement of IT Plan objectives, achievement of target service levels and expectations as defined in Service Level Agreements. DTS will measure and report achievement of services and functions to agency leadership on a regular basis.

## Accessibility

The Department of Technology Services works closely with the blind and deaf communities in Utah to improve the accessibility of the services it provides, both for employees as well as the public.  The department has developed standards, training for DTS developers,  and an Administrative Rule that promote the development of systems that support this objective.  The Department will continue to leverage new technologies to enhance the online digital experience for people with disabilities.

## Mobility

Utah's mobile strategy addresses the following objectives:

- Increase the productivity and effectiveness of the state's increasingly mobile workforce through efficient provisioning and technical support.

- Ensure highly mobile Utah citizens are able to access and utilize the state's online services and information regardless of the platform they choose to utilize.

DTS will work with agencies to achieve these objectives by:

- Providing tools and resources to secure the mobile work environment
- Developing innovative mobile applications and services based on business requirements
- Promoting the use of responsive design for web development
- Making sure that mobile solutions address the accessibility requirements of users

DTS will coordinate with agencies to implement systems that enable employees to work efficiently and securely anywhere in the State.

## Voice and Network

DTS has adopted a converged network that will deliver voice, video and data on a common platform. The converged network topology delivers real-time services such as voice over the existing data network, referred to as Voice over IP (VoIP), along with everyday data applications. VoIP and voice video services foundation and environment are available to agencies,  as funding is available.

With the expanding opportunities for both employees and the public provided by new tools such as the Internet of Things, Artificial Intelligence, Videos, Cameras, etc., there continues to be more demand for the consumption of network bandwidth. DTS continues to analyze and review the needs of customers and work cooperatively with agencies to deliver stable and secure solutions that support agency business.

## Application Development

DTS will incorporate a process for development which will emphasize prioritization, focus, and single-threading in order to maximize development efforts and streamline the delivery of software products. These efforts will:

- Help agencies get systems that fulfill agency requirements to production sooner
- Increase cost effectiveness for cross functional opportunities and provide shared solutions
- Streamline processes, providing consistency and reusable code
- Provide direction to help agencies identify systems that are nearing end of life and modernize systems

# Data Management and Analytics

State agencies are finding increased value in the ability to use data to improve operations and outcomes. DTS will support data-driven government by working with agencies to implement advanced data management and analytics capabilities. This includes improvements to the support of data warehouse and business intelligence operations, as well as implementing new capabilities to allow the State to take a more holistic approach to data analytics.

The State of Utah currently has in excess of 1,100 operational databases across all state agencies. Although these databases contain a wealth of information that is of value to state government and the people of Utah, much of this information is duplicated, as is the time and effort to keep it current. DTS will support an enterprise approach to data management through the following actions:

- Identify primary and secondary sources of data
- Identify data resources that are shared and supported by multiple agencies and explore opportunities to manage these information assets as enterprise resources
- Simplify and standardize the state's database and data warehouse environments
- Make enterprise business intelligence and document management solutions easier to use, cheaper to sustain, and accessible for state agencies
- Update the existing enterprise strategy for identity and authentication

DTS will work with the legislature and state agencies to form a task force to establish a process for data integration, beginning with business related requirements. If successful, the goal is to expand this effort to resident data, making it easier for residents to track and manage transactions with Utah agencies.

# Open Data and Transparency

DTS developed and supports the State's open data portal, which provides access to over 2,300 open data sets. DTS will continue to work closely with the State Transparency Board to provide open data resources that provide value to the public as well as to Utah businesses. DTS will work with state and local agencies to ensure data quality and availability.

# Geographic Information

Utah's geospatial resources include the digital map layers in the State Geographic Information Database, as well as other location-enabled data assets, and supporting applications. Critical map-based information includes current civic boundaries, roads and addresses, land ownership records, aerial photography, elevation models and other

physical and infrastructure features. Together, geographic information systems (GIS) enable state agencies and their partners to best understand, manage, and communicate in important issue areas including emergency response, natural resources, economic development, transportation, and public lands.

DTS's Automated Geographic Reference Center (AGRC) will continue to:

- Develop and sustain enterprise geospatial resources
- Coordinate across the hundreds of Utah organizations, including state, local, tribal, and federal agencies as well as those in the private and academic sectors, that produce and/or rely upon accurate geospatial information

## Portfolio and Project Management

As IT becomes increasingly integral to the functioning of business processes across all agencies, the ability to manage all IT projects effectively has become essential. DTS must deliver accurate results on time and within budget, and continually seek to improve efficiency and productivity.

Project management training will be provided and associated certifications will be awarded. This will establish a continuing cycle of project management skill improvement. Training will be in compliance with the Project Management Institute's standards.

Project lifecycle workflow will be followed to provide a disciplined continuity to the progression of a project from the identification of a need to the successful closeout of the project. Mandatory reviews will be made at key intervals throughout the life of each project. Key project indicators are monitored continuously via DTS Dashboard Metrics.

Infrastructure projects will be reviewed and scored by agency IT Directors to ensure projects are aligned to the strategic plan, and will be of benefit to the agencies.

## Digital Government

In the past 20 years, Utah government has undergone a dramatic digital transformation. Online initiatives now save the State millions of dollars annually and make it simple for citizens to conduct most of their basic interactions with the state through a simple online process. DTS will continue to work with agencies to implement innovative digital solutions that reduce costs and improve services. The Department will work to ensure that digital transactions can remain secure and accessible to all.  Holistic solutions that are focused on the user, taking advantage of contextual awareness will be promoted that make it easier for users to accomplish online objectives.

# Green IT

Wise use of energy and other resources is a top priority in Utah, as a means to improve efficiency, reduce energy demand and enhance the environment while saving money and creating jobs. The Department of Technology Services has implemented Green IT initiatives as a way to reduce internal costs and save resources while providing equivalent or better service to customers. The Department has incorporated Green IT concepts into every area of strategic focus and will continue to work with customers to implement strategies that support this perspective. All equipment purchases made by the Department will be consistent with energy efficient standards.

# Efficiency in Data Center and Network Operations

DTS has virtualized the vast majority of its compute resources while consolidating all of its data centers into two locations. These efforts have significantly reduced cost to the state while enabling DTS to much more quickly provide computing resources to its customers.

Virtualization technologies can provide similar benefits of cost and performance in the areas of storage and networking. Software defined networking (SDN) and storage will streamline the provisioning of services to DTS customers, while improving management capabilities. Shared Services offerings provide DTS the ability to better collaborate between agencies and government entities. DTS will work towards full implementation of a Software-Defined Data Center that be more efficient and provide better and more consistent overall service.

# IT Asset Management

DTS will continue to provide efficiencies for the procurement and deployment of IT assets. DTS is working with the Governor's Office to achieve a 25% increase in timeliness from the initial request to the deployment of computers.  These computer assets as well as other IT assets will be tracked and reported through an asset management system.  In addition, DTS procurement will continue to provide enhanced cost savings to the state through centralized IT asset procurement processes.  Finally, DTS will create a software asset system to track the master license agreement software on computers to make sure agencies are in compliance with Adobe and Microsoft purchased software.

# Emerging Technologies

DTS will work to provide an overall vision for how the State can integrate new technologies to improve processes and provide better service. It is clear that a number of emerging technologies are primed to have a major impact on Government service, among these the Internet of Things (IoT) and Artificial Intelligence.

## Internet of Things

The Department will develop an Internet of Things (IoT) strategy that identifies best practices for leveraging internet-connected devices to improve the way government operates.  Some of these improvements such as smart roadways and environmental sensor-nets are already in use. As use grows and related technologies are introduced, DTS will work to provide secure, cost-effective connectivity.

### Artificial Intelligence

Artificial Intelligence, or AI, is already being introduced to end users through the integration of digital assistants into mobile devices as well as smart home automation.  AI can also play a role in the effective management of government resources, the delivery of digital services, and automation of government processes. Effective data management will be an important building block or enabler of AI services.  DTS will work with agencies to identify opportunities for using AI to improve the way government operates.

## Plan Execution and Measurement

Information technology strategic goals and initiatives should be measurable in terms of results, completion of deliverables, and adherence to cost estimates and project timelines. The DTS Metrics Dashboard will be utilized to measure DTS success in achieving goals and will demonstrate areas where improvement is needed. DTS will continue to develop metrics based on the Strategic Plan that will be useful for the department, and will enable better business practices and measurements for the success in providing excellent service to customers. DTS will also continue to establish SUCCESS framework projects to achieve the Governor's Office goal of 25% efficiency in state government.

The DTS Strategic Plan will be utilized for the IT Plans as developed by agency business requirements.  The DTS Annual Report will highlight the accomplishments and activities during the year, as defined in Utah Code Section 63F-1-201.